

Environmental Sensitivity Index (ESI) Maps (for the U.S. Shorelines, including Alaska, Hawaii, and Puerto Rico)

Metadata also available as

Metadata:

- [Identification Information](#)
 - [Data Quality Information](#)
 - [Spatial Data Organization Information](#)
 - [Distribution Information](#)
 - [Metadata Reference Information](#)
-

Identification Information:

Citation:

Citation Information:

Originator:

Department of Commerce (DOC), National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration, Hazardous Materials Response Division

Publication Date: Various

Title:

Environmental Sensitivity Index (ESI) Maps (for the U.S. Shorelines, including Alaska, Hawaii, and Puerto Rico)

Geospatial Data Presentation Form: atlas

Publication Information:

Publication Place: Seattle, WA

Publisher: NOAA's Ocean Service, Office of Response and Restoration

Other Citation Details:

Prepared by Research Planning, Inc., Columbia, South Carolina for the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington and other concerned agencies, varying by individual atlas.

Online Linkage:

LinktoContent=<<http://response.restoration.noaa.gov/esi/esiintro.html>>;

MapServer=<<http://patapsco.nos.noaa.gov>>; MapService=mapfinder;

Server=<<http://patapsco.nos.noaa.gov>>; Service=egis; ServiceType=inventory

Description:

Abstract:

Environmental Sensitivity Index (ESI) maps are an integral component in oil-spill contingency planning and assessment. They serve as a source of information in the event of an oil spill incident. ESI maps are a product of the Hazardous Materials Response Division of the Office of Response and Restoration (ORR).

ESI maps contain three types of information: shoreline classification based on sensitivity to oiling, human-use resources, and biological resources. Most often, this information is plotted on 7.5 minute USGS quadrangles, although in Alaska, USGS topographic maps at scales of 1:63,360 and 1:250,000 are used, and in other atlases, NOAA charts have been used as the base map. Collections of these maps, grouped by state or a logical geographic area, are published as ESI atlases. Digital data have been published, for most of the U.S. shoreline, including Alaska, Hawaii and Puerto Rico.

Purpose:

The ESI data were collected, mapped, and digitized to provide environmental data for oil spill planning and response. The Clean Water Act with amendments by the Oil Pollution Act of 1990 requires response plans for immediate and effective protection of sensitive resources.

Oil spill planning and response remains the primary direct use of these maps, however they are finding ever widening use in such areas as coastal resource inventories and assessments, coastal planning, and recreational planning.

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1980

Ending_Time: 2002

Currentness_Reference: publication date

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None planned

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 172.42

East_Bounding_Coordinate: 65.17

North_Bounding_Coordinate: 71.48

South_Bounding_Coordinate: 17.52

Keywords:

Theme:

Theme_Keyword_Thesaurus: None

Theme_Keyword: ESI

Theme_Keyword: Environmental Sensitivity Index

Theme_Keyword: ESI Maps

Theme_Keyword: ESI Atlas

Theme_Keyword: Sensitivity maps

Theme_Keyword: Coastal Resources

Theme_Keyword: Oil spill planning

Theme_Keyword: Coastal Zone Management

Theme_Keyword: Oceans

Theme_Keyword: Hydrography

Theme_Keyword: Wildlife

Place:

Place_Keyword_Thesaurus: None

Place_Keyword: U.S. Exclusive Economic Zone

Access_Constraints: None.

Use_Constraints:

DO NOT USE ESI MAPS FOR NAVIGATIONAL PURPOSES. Besides the above warning, there are no use constraints on these data. Note that the ESI database should not be used to the exclusion of other pertinent data or information held by state or federal agencies or other organizations. Likewise, information contained in the database cannot be used in place of consultations with environmental, natural resource, and cultural resource agencies, or in place of field surveys. Recognize that the information contained in the ESI database represents known concentration areas or occurrences of natural, cultural, and human-use resources, but does not necessarily represent the full distribution or range of each species or resource. This is particularly important to recognize when considering potential impacts to protected resources, such as endangered species, wetlands, etc. Acknowledgment of the originators, publishers, contributors, and sources listed would be appreciated in products derived from these data.

Point_of_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: NOAA, NOS, Office of Response and Restoration

Contact_Address:

Address_Type: mailing and physical address

Address: 7600 Sand Point Way NE

City: Seattle

State_or_Province: WA

Postal_Code: 98115-6349

Country: USA

Contact_Voice_Telephone: 206-526-6944

Contact_Facsimile_Telephone: 206-526-6329

Contact_Electronic_Mail_Address: jill.petersen@noaa.gov

Browse_Graphic:

Browse_Graphic_File_Name: Environmental Sensitivity Index Map Overview

Browse_Graphic_File_Description: Index map of current status of scanned ESI atlases

Browse_Graphic_File_Type: GIF

Data_Set_Credit:

This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Response and Restoration (ORR), Hazardous Materials Response Division (HAZMAT), Seattle, Washington, and other federal, regional, state, and local agencies, varying by atlas.

Native_Data_Set_Environment:

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO(r) (version 8.0.2) and ORACLE(r) RDBMS (version 8.0.5.0.0). The hardware configuration is Hewlett Packard workstations (models 715/50 and 712/80i with 4 X-terminals) with UNIX operating system (HP-UX Release A.10.20), and PC's with Windows Operating System (NT4.0/2000).

Data_Quality_Information:

Attribute_Accuracy:

Attribute_Accuracy_Report:

A multi-stage error checking process is used to verify both attribute accuracy and logical consistency throughout data production. The process includes a standardized

data entry methodology, hardcopy data review by in-house and external resource experts, a final Quality Assurance/Quality Control (QA/QC) process, and multiple automated logical consistency checks. Quantitative data (such as densities, counts, abundances, or concentrations) provided by resource experts for inclusion in the data set may vary widely in attribute accuracy, depending upon the methodology used to collect and compile such data. For a more detailed evaluation of source data attribute accuracy, contact the sources listed in the Lineage section of the individual atlas of interest.

Logical_Consistency_Report:

A multi-stage error checking process, described in the above Attribute_Accuracy_Report, is used to verify both attribute accuracy and logical consistency throughout data production. This process includes multiple automated logical consistency checks that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary nodes, etc.), and ORACLE(r) to ARC/INFO(r) consistencies. A final review is made by the GIS manager, where the data are written to CD-ROM and the metadata are written. After the data are delivered to NOAA, they are again subjected to a number of quality and consistency checks.

Completeness_Report:

These data represent coastal shorelines and habitats classified according to the Environmental Sensitivity Index (ESI) classification system.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:

As a rule, the positional accuracy is based on the source data, which for the lower contiguous states, is generally the 1:24,000 USGS quads. In Alaska, it is a combination of the 1:63,360 and 1:250,000 USGS quads, and may vary elsewhere.

Lineage:

Source_Information:

Source_Citation:

Citation_Information:

Title: Multiple and varied, based on atlas.

Process_Step:

Process_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: NOAA, NOS, Office of Response and Restoration

Contact_Position: Jill Petersen

Contact_Address:

Address_Type: mailing and physical address

Address: 7600 Sand Point Way, NE

City: Seattle

State_or_Province: Washington

Postal_Code: 98115- 6349

Country: USA

Contact_Voice_Telephone: 206-526-6944

Contact_Facsimile_Telephone: 206-526-6329

Contact_Electronic_Mail_Address: Jill.Petersen@noaa.gov

Process_Step:

Process_Description: Dataset copied.

Source_Used_Citation_Abbreviation:

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Vector

Point_and_Vector_Object_Information:

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: GT-polygon composed of rings

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Area point

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Complete chain

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Link

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Node, planar graph

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Label Point

Distribution_Information:

Distributor:

Contact_Information:

Contact_Person_Primary:

Contact_Person: John Kaperick

Contact_Organization: NOAA, NOS, Office of Response and Restoration

Contact_Address:

Address_Type: mailing and physical address

Address: 7600 Sand Point Way, NE

City: Seattle

State_or_Province: Washington

Postal_Code: 98115-6349

Country: U.S.A.

Contact_Voice_Telephone: 206-526-6400

Contact_Facsimile_Telephone: 206-526-6329

Resource_Description: Static Map Images

Distribution_Liability:

Although these data have been processed successfully on a computer system at the National Oceanic and Atmospheric Administration, no warranty, expressed or implied, is made by NOAA regarding the utility of the data on any other system, nor shall the act of distribution constitute any such warranty. NOAA warrants the delivery of this product in computer-readable format, and will offer a replacement copy of the product when the product is determined unreadable by computer-input peripherals, or when the physical medium is delivered in damaged condition.

Standard_Order_Process:

Digital_Form:

Digital_Transfer_Information:

Transfer_Size: 1.120

Digital_Transfer_Option:

Online Option:

Computer Contact Information:

Network Address:

Network Resource Name:

[<http://response.restoration.noaa.gov/esi/metadata.html>](http://response.restoration.noaa.gov/esi/metadata.html)

Custom Order Process:

Contact NOAA for distribution options (see Distributor). ESI data are processed into multiple formats to make them useful to a wider community of GIS/mapping users. Distribution formats include ARC export, MOSS and Shape files, and MARPLOT map folders. An ArcView ESI project and ESI Viewer product are also included on the distribution CDs for ease of use of the ESI data. The database files are distributed both in the NOAA standard relational database format (see NOAA Technical Memorandum NOS ORCA 115) and in a simplified desktop flat file format.

Metadata Reference Information:

Metadata Date: 20021219

Metadata Contact:

Contact Information:

Contact Organization Primary:

Contact Organization: NOAA, NOS, Office of Response and Restoration

Contact Person: Jill Petersen

Contact Address:

Address Type: mailing and physical address

Address: 7600 Sand Point Way, NE

City: Seattle

State or Province: Washington

Postal Code: 98115-6349

Country: U.S.A

Contact Voice Telephone: 206-526-6944

Contact Facsimile Telephone: 206-526-6329

Contact Electronic Mail Address: Jill.Petersen@noaa.gov

Metadata Standard Name: FGDC Content Standards for Digital Geospatial Metadata

Metadata Standard Version: FGDC-STD-001-1998

Metadata Time Convention: local time

Metadata Extensions:

Online Linkage: [<http://www.esri.com/metadata/esriprof80.html>](http://www.esri.com/metadata/esriprof80.html)

Profile Name: ESRI Metadata Profile
